TECAMID® 66 GF30 natural - Stock Shapes (rods, plates, tubes)

Chemical Designation
PA 66 (Polyamide 66)

Colour
grey-white

Density
1.36 g/cm^3

Fillers
30% glass fibres

Main features
- very good mechanical strength
- high heat deflection temperature
- high stiffness
- high strength
- excellent wear properties
- high fatigue strength
- resistant to many solvents
- high creep resistance

Target Industries
- power engineering
- gear manufacturing
- automotive industry
- conveyor technology
- mechanical engineering
- construction industry
- others

Mechanical properties	condition	value		test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	800,000	psi	ASTM D 638	
Tensile strength at yield	@ 73 °F	13,500	psi	ASTM D 638	
Elongation at break (tensile test)	@ 73 °F	10	%	ASTM D 638	
Flexural strength	@ 73 °F	19,575	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	700,000	psi	ASTM D 790	
Compression strength	@ 73 °F, 1% strain	2,900	psi	ASTM D 695	
Compression strength	@ 73 °F, 10% strain	17,000	psi	ASTM D 695	
Compression modulus	@ 73 °F	380,000	psi	ASTM D 695	
Impact strength (Izod)		1.25	ft-lbs/in	ASTM D 256	
Rockwell hardness	M Scale	88		ASTM D 785	

Thermal properties	condition	value		test method		comment
Melting temperature		499	°F	-	1)	(1) publicly sourced data (2) publicly sourced data (3) publicly sourced data (4) publicly sourced data (5) Data obtained from public source (6) Data obtained from public source
Service temperature	Intermittent	338	°F	-	2)	
Service temperature	Long Term	230	°F	-	3)	
Thermal expansion (CLTE)		2.7*10^{-5}	in/in/°F	ASTM D 696	4)	
Specific heat		0.3	BTU/lb-F°	-	5)	
Thermal conductivity		2.71	BTU-in/hr-ft^2-°F	-	6)	

Electrical properties	condition	value		test method		comment
surface resistivity		1.0*10^{14}	Ω/square	ASTM D 257	1)	(1) Data obtained from public source (2) Data from public source
Volume resistivity		1.0*10^{14}	Ω*cm	-	2)	

Other properties	condition	value		test method	comment
Moisture absorption	@ 24 hrs, 73 °F	0.25	%	ASTM D 570	
Moisture absorption	@ saturation, 73 °F	0.30	%	ASTM D 570	

- Resin specification:
  ASTM D6779-11 PA0110G30A00000 and ASTM D4066-01a (Reapproved 2008) PA0110G30A00000
  Shapes specification: ASTM D5989-11 S-PA0101G3054444420

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